NASA
Facility Use Agreements

2011 Facilities Engineering and Real Property Conference-Nashville, TN

Overview

- Purpose of NASA Out-Grants (Facility Use Agreements)
- NASA Authorities
- Out grant Activity
- Overhead Expenses
- Summary
- Sampling of Projects

Purpose of NASA Out-Grants

- Promote public-private partnerships
  - ➢ Leverage intellectual capital that benefit and support NASA's mission
  - Contribute to national, regional and state academic institutions to:
  - ➢ involve educational programs that foster NASA's mission, or
  - ➢ Pursue science, aerospace research and technology initiatives
  - Out-grant facilities to interested groups based on a unique characteristic of a Center or a specialized facility

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Purpose of NASA Out-Grants (cont'd)

- Defray the cost of maintaining and improving the Center's aged and expanded infrastructure
- Co-location of other compatible Federal agencies to provide economies of scale for the execution of Federal Agency
- Out-grant facilities to interested groups based on a unique characteristic of a Center or a specialized facility
- Aid in the economic development of a Center's surrounding area

NASA Authorities

- Space Act
  - Reimbursable Space Act Agreements (RSAA)
  - Non-Reimbursable Space Act Agreement (NRSAA)
  - Concessionaire Agreement (CA)
  - Enhanced Use Lease (EUL)
- National Historic Preservation Act
- Economy Act
- Commercial Space Launch Act

Space Act

- The Space Act authorizes NASA "…to lease to others such real and personal property" (Section 203(c)(3))
- Most out-grants are authorized under the Space Act and are specifically one of the several types of agreements ("Space Act Agreements"):
  - Licenses, use permits, Memoranda of Agreement (MOA) and Memoranda of Understanding (MOU)
- Two primary out-grants under the authority of the Space Act: Reimbursable Space Act Agreements and Non-Reimbursable Space Act Agreements

Space Act (cont'd)

- Out-grants cannot provide for less than "fair value of money" consideration for the use of a property
- Amounts exceeding fair value of money must be delivered to the United States Treasury
- Amounts collected under the authority of Enhanced Use Leasing provides that net cash proceeds must be deposited in a capital asset account
- Out-grants under the authority of the Space Act must provide NASA with the right to terminate for convenience and at no cost

National Historic Preservation Act

- Permits NASA to out-grant historic property and retain the proceeds for up to two (2) fiscal years to defray the cost of administration, maintenance, repair, and related expenses incurred by NASA with respect to a property
- Allows NASA to retain revenue to maintain and preserve a Center's historic infrastructure
- Allows for a tenant to make improvements at the tenant's expense

Economy Act

- Provides authorization for Federal agencies to request and perform reimbursable work for other Federal agencies
- Also referred to as interagency out-grants
- Based on the condition that:
  - There is NASA real property available for use,
  - The use of the real property by the other agency is in the best interest of the United States Government
  - The real property or services being provided cannot be provided by contract as conveniently or inexpensively by a commercial enterprise
- No rent is charged but the Federal tenant is required to pay their proportionate share of the costs of operating the asset and for any special services requested

Commercial Space Launch Act (49 U.S.C. 701)

- Governs the sale of launch services at the direct cost of such services
- Also includes the base pay of Government civilian and contractor personnel involved in providing such services
- The contract is for the service provided rather than for an out-grant of real property

Out-Grant Activity

- Tenants generally have synergistic missions that mutually benefit NASA and the tenants
- Tenants that are generally agricultural tenants keep the required buffer land in productive use
- Tenants that require secure site, and/or who benefit from being near NASA's unique mission benefit from Out-Grant agreements.
- NASA has facilities to support manufacturing of unique human-rated space hardware and cutting edge manufacturing processes and equipment
- NASA has tenants that value the buffer zone.

Types of Out-Grant Overhead Expenses

- **Shared Charges**: NASA and its tenants agree to an algorithm to share the costs of operation and maintenance on a square foot, per person, and/or per unit basis
- **Demand Services**: For tenants that require specialized services, NASA charges these tenants directly for the specialized services requested. A Center management and operations charge may be added to these charges to ensure that the Government is fairly reimbursed for the cost of completing these specific requests
- **Fair Market Value**: For EUL tenants, and for some Centers that have a very complex array of Center costs, surveys of the local markets are conducted that determine the market price for charges for service or facilities

Understanding Charges

- The methodology for determining costs are:
  - Consistent with normal real estate practices
  - The resulting rates are fair and reasonable
- For charges based on FMV
  - There is no meaningful economic difference between locating on a NASA Center or in the private sector

Understanding Charges (cont'd)

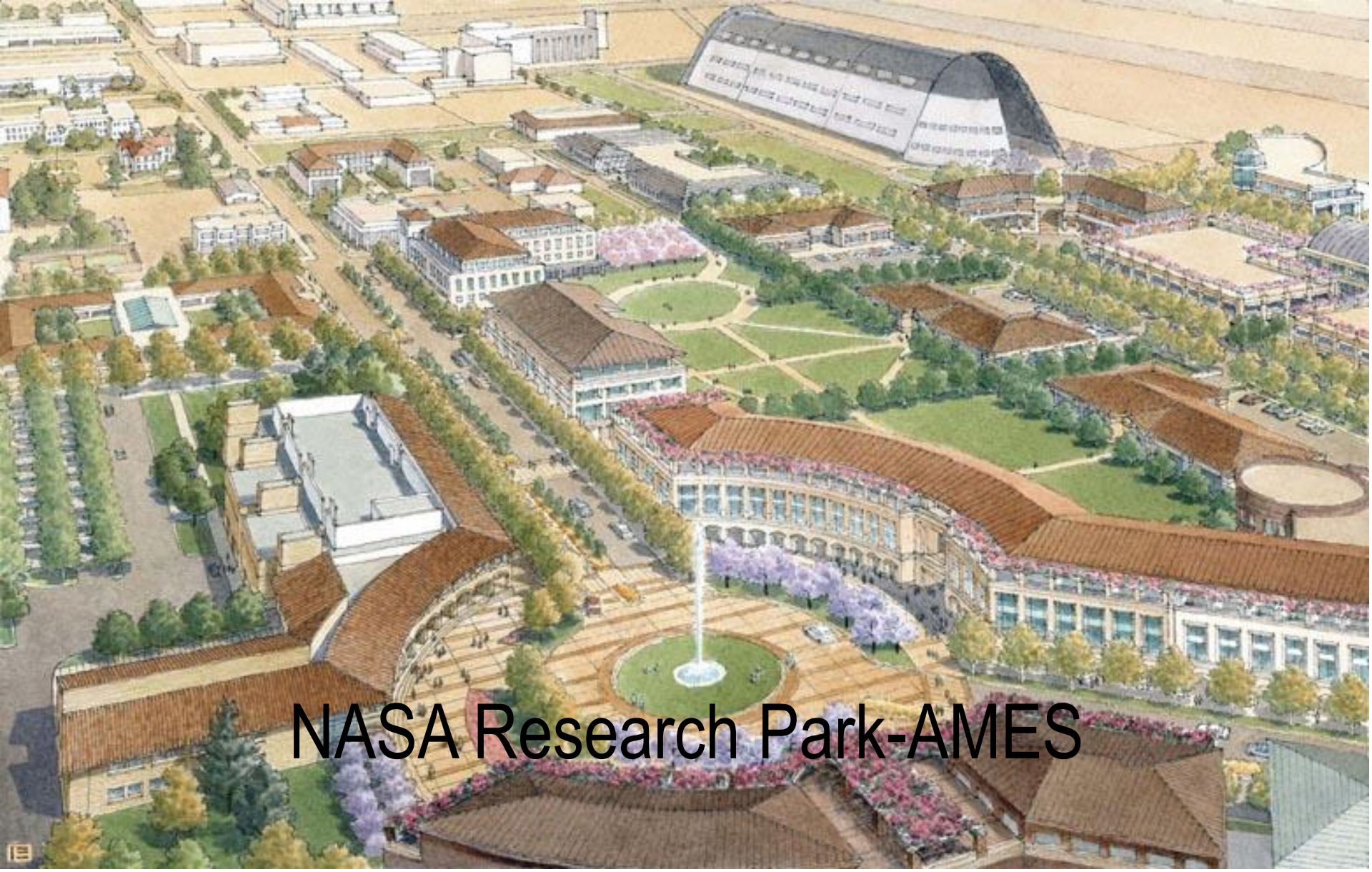
- For a shared charge and/or demand service charge:
  - At a private sector facility, there are generally two types of rent components:
    - the portion of rent allocated to "capital investment" in the facility
    - the portion of rent allocated to expenses
  - NASA has no equivalent "capital investment" portion of rent, however the expenses are higher than the private sector
  - The expenses associated with NASAs unique capabilities are imbedded in NASA's overall real property costs:
    - The cost of being on a NASA Center site is more expensive than the cost of being in a private sector facility that does not have these unique capabilities

Summary of Out grant Program

- Out-grant of NASA real property encourages and supports maximum utilization of NASA's real property
- Out-granting allows other Federal agencies, educational institutions and private entities to utilize NASA unique real property assets
  - Thereby increasing the degree of synergistic activities that support programmatic relationships and mission activities
- The methodology for determining out-grant overhead expenses vary at each Center depending upon:
  - The magnitude of out-grant activities
  - The types of tenants
  - The physical location, and the size and layout of the site
  - The type of property or facility in which a tenant is conducting an activity

Summary of Out grant Program (cont'd)

- Centers with large numbers of out-grants have streamlined processes for determining, allocating and distributing charges appropriately
- NASA's Centers are specifically designed to service the NASA mission objectives.
  - Tenants who desire to locate at a NASA Center are aware of the additional non-economic burdens, such as higher levels of security, potential business disruption in the event of a NASA mission related activity, or other challenges
  - Centers with large numbers of out-grants have streamlined processes for determining, allocating and distributing charges appropriately
  - NASA continuously seeks to improve its internal processes and procedures. In a related effort beyond the scope of this study, the Agency is examining its overall leasing program and tenant financial arrangements to ensure that Agency leasing practices and objectives are in line with the mission of the Agency


NASA Research Park-AMES

Bloom Energy Corporation: Breakthrough Fuel Cell Technology

Bloomenergy™

Powder to Power™

- Former Ames contractor Dr. K.R. Sridhar (now Bloom Energy CEO) had idea on fuel cell development
- Renovated 10,000 sq. ft. building in NRP –now world-class lab
- Breakthrough fuel cell power generation technology with roots in NASA Mars program
- Newsweek reports it as one of top 10 new alternative energy projects
- Now employs 300 with nearby offsite location
- Maintains R&D and testing at NRP
- R&D collaborations in alternative power & nanotechnology applications for use in extra-terrestrial environments

Airship Ventures: Promotes Regional Tourism

- **1st commercial zeppelin service in U.S. in 70 years**
- **Airship use of historic airship hangar**
- **Collaboration focus on disaster response, environmental monitoring & earth science, and educational outreach in aeronautics**
  - South Bay salt ponds reclamation project monitoring/assessment
  - Woods Hole Oceanographic Killer whale population monitoring in Washington state

UAV Collaborative: Using Drones to Aid Rescuers

- Fuel efficient, unmanned aerial vehicles (UAVs)
- Aiding the success of challenging missions such as atmospheric sampling, fire fighting and urgent search-and-rescue operations.
- By showcasing and advancing NASA-developed technologies, the UAV Collaborative provides tangible benefits to other federal and state agencies.

Unimodal - Advanced Maglev

- Personal Rapid Transit start-up
- Established demo track in NRP Building to showcase its SkyTran "people mover"
- NASA collaboration re: high-dependability software
- Developing test facilities at NRP
- Major interest from Caltrans and Metro Transit leadership

KleenSpeed Technologies Inc.: Scalable Electric Propulsion Systems

KleenSpeed Technologies, Inc. was founded to develop technology, products and systems for the rapidly emerging electric vehicle industry:

- KleenSpeed uses racing cars converted to total electric power utilizing KleenSpeed systems;
- Vehicles are a laboratory and test bench to develop and test products;
- KleenSpeed brings state-of-the-art technologies to a range of other consumer and industrial vehicles.

Carnegie Mellon West

- **Renovated historic Building adding state-of-the-art "classroom of the future"**
- **Offers world-class graduate programs in software engineering and management**
  - 400th graduate this summer
- **CMU Innovation Lab –a think tank for high performance, small unmanned vehicles**
- **MAX, a laptop on wheels, supports NASA science and education missions in remote hostile environments - analogues for moon and Mars Exploration**

United Negro College Fund Special Programs Corporation: Summer Scholars and Faculty Fellows

- Programs bring together students and faculty from historically Black Colleges and Universities, Hispanic-serving Institutions, Tribal Colleges and Universities, and other minority institutions to get hands-on research experiences at NASA centers,.
- Successfully engaging the minority higher education community in government and industry research and contributing to STEM education in populations that are underrepresented in America's scientific and research community.
- The program has been expanded to include scholar placements at Johnson Space Center and Glenn Research Center .

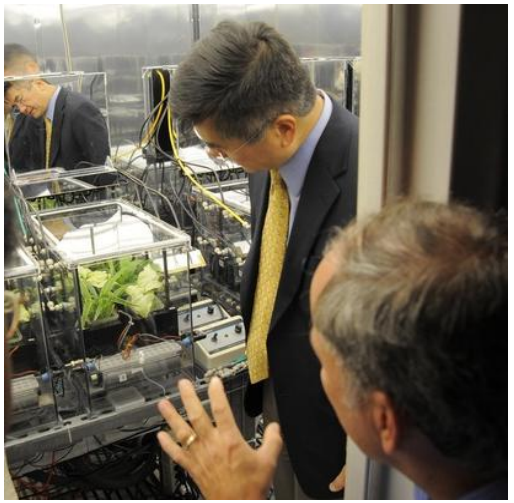
Expanding the Research and Technology Base at KSC

EXPLORATION PARK

at Kennedy Space Center

KSC's new research and technology park, under development by Space Florida in partnership with NASA. Soon to host a diversity of science and technology.

Space Life Science Lab



Public-Private Partnership
Florida Power & Light at Kennedy Space Ctr.

GSA's 2009 Achievement Award for innovative practices and initiatives.

NASA Major Facility Index
http://facility.hq.nasa.gov/

NASA -Real Estate Management
http://www.hq.nasa.gov/office/codej/codejx/jxstaff_planning.html

Questions Comments and Discussion